

1. A method for vaccinating cattle against *Haemophilus somnus* infection, comprising administering an immunogenic *H. somnus* organism to the cattle, wherein the administered organism possesses characteristics different from those of the wild type virulent organism, the differences comprising the lack of expression of one or more immunoglobulin binding proteins produced by the wild type virulent organism, susceptibility to killing by bovine complement-containing serum, and reduced shedding of endotoxin during growth.

5. The method of claim 1, wherein the administered organism comprises a live vaccine.

6. The method of claim 1, wherein the administered organism comprises a killed vaccine.

8. The method of claim 1, wherein one or more immunoglobulin binding proteins is missing from the administered organism by deletion of one or more genes encoding the one or more immunoglobulin binding proteins from the *H. somnus* genome.

9. The method of claim 8, wherein the administered organism further expresses one or more protective antigens.

10. The method of claim 9, wherein the protective antigen is a 40 kDa *H. somnus* outermembrane protein.

11. The method of claim 1, wherein the administered organism is selected from the group consisting of PTA-600, PTA-601, PTA-602 and PTA-603, deposited with the American Type Culture Collection.

12. The method of claim 9, wherein the administered organism is genetically engineered to express said one or more protective antigens.